

Amendments to the Claims:

This listing of claims will replace all prior version, and listings, of claims in the application:

Listing of Claims:

1-16. (Canceled).

17. (New) A method for field-oriented regulating a synchronous machine excited by a permanent magnet, the method comprising:

determining a quadrature-axis current component setpoint value;

supplying the quadrature-axis current component setpoint value and rotational speed information to a decoupling network which contains a stationary machine model;

determining a direct-axis voltage component and a quadrature-axis voltage component in the decoupling network as a function of only the quadrature-axis current component setpoint value, the rotational speed information and the stationary machine model; and

converting the direct-axis voltage component and the quadrature-axis voltage component into triggering pulses for the synchronous machine

18. (New) The method of claim 17, wherein the quadrature-axis current component setpoint value is determined in a logic unit.

19. (New) The method of claim 18, wherein a reversing operation is performed in the logic unit as a function of a predetermined rotational speed threshold value.

20. (New) The method of claim 19, wherein the quadrature-axis current component setpoint value is derived by a higher-level control unit at rotational speeds which are lower than the predetermined rotational speed threshold value.

21. (New) The method of claim 20, wherein the quadrature-axis current component setpoint value is derived from a setpoint torque predetermined by the higher-level control unit.

22. (New) The method of claim 21, wherein the setpoint torque is the starting torque.

23. (New) The method of claim 19, wherein the quadrature-axis current component setpoint value is derived by a battery voltage regulator at rotational speeds which are greater than the predetermined rotational speed threshold value.

24. (New) The method of claim 23, wherein the battery voltage regulator determines the quadrature-axis current component setpoint value as a function of a battery voltage setpoint value supplied by a higher-level energy management system and a battery voltage actual value supplied by a battery voltage sensor.

25. (New) A device for field-oriented regulating a synchronous machine excited by a permanent magnet, comprising:

a decoupling network which includes a stationary machine model having an input for a quadrature-axis current component setpoint value and an input for rotational speed information, and which is provided for determining a direct-axis voltage component and a quadrature-axis voltage component as a function of only the quadrature-axis current component setpoint value, the rotational speed information and the stationary machine model, and

a conversion unit which is connected to the decoupling network for converting the direct-axis voltage component and the quadrature-axis voltage component into triggering pulses for the synchronous machine.

26. (New) The device of claim 25, wherein it includes a logic unit having an output for the quadrature-axis current component setpoint value.

27. (New) The device of claim 26, wherein the logic unit has an input for rotational speed information and for performing a reversing operation as a function of a predetermined rotational speed threshold value.

28. (New) The device of claim 27, wherein the logic unit outputs at its output a quadrature-axis current component setpoint value which is derived by a higher-level control unit at rotational speeds which are lower than the predetermined rotational speed threshold value.

29. (New) The device of claim 28, wherein the logic unit derives the quadrature-axis current component setpoint value from a setpoint torque which is derived by the higher-level control unit.

30. (New) The device of claim 29, wherein the setpoint torque is a starting torque.

31. (New) The device of claim 27, wherein the logic unit outputs at its output a quadrature-axis current component setpoint value which is supplied by a battery voltage regulator at rotational speeds which are greater than the predetermined rotational speed threshold value.

32. (New) The device of claim 31, wherein the battery voltage regulator has a battery voltage setpoint value input which is connected to a higher-level energy management system and has a battery voltage actual value input which is connected to a battery voltage sensor.